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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/877,786	06/11/2001	Marc Jay Levine	USGS-3666	9912

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EXAMINER	
LEE, PHILIP C	

ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/877,786	LEVINE, MARC JAY	
	Examiner	Art Unit	
	Philip C. Lee	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 February 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-7,9,11-20 and 22-28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,4-7,9,11-20 and 22-28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. This action is responsive to the amendment and remarks filed on February 07, 2005.

2. Claims 1-2, 4-7, 9, 11-20 and 22-28 are presented for examination. Claims 3, 8, 10 and 21 are canceled.

3. Claim 4 is objected because it is dependent on a canceled claim 3.

4. The text of those sections of Title 35, U.S. code not included in this office action can be found in a prior office action.

Claim Rejections – 35 USC 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-2, 6-7, 9, 11, 13-16, 19-20, 22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle et al, U.S. Patent Application Publication 2003/0154261 (hereinafter Doyle) in view of Mendenhall, U.S. Patent 6,133,960 (hereinafter Mendenhall).

7. Doyle was cited in the last office action.

8. As per claims 1, 14 and 28, Doyle taught the invention substantially as claimed for managing, visualizing, and analyzing geospatial data across a computer network, said system comprising:

a plurality of processing servers integrated with one another for providing at least one data set by distributed processing (page 4, paragraph 34; page 9, paragraph 97), said at least one data set comprising a plurality of data set values (i.e. pixel values) (page 6, paragraphs 66 and 68); and

a client computer connectable to said plurality of processing servers for transmitting a query request to said plurality of processing servers, for receiving and storing said at least one data set (it is inherent that the image data must be stored in memory in order to perform the process of updating of the view of the image.) from at least one of said plurality of processing servers, for rendering an image from said at least one data set (page 6, paragraphs 66 and 68), and for conducting geospatial queries between said data set values of said at least one data set (page 4, paragraph 34; Page 9, paragraph 97). Note that since the user (i.e., client computer) is able to rotate, scale and otherwise reposition

the viewpoint with the image, it is inherent that user must conduct geospatial queries (i.e., manipulating the data received from the server) between the data set values.

9. Doyle did not specifically disclose detailing the data set values (i.e., pixel values) in different formats. Mendenhall taught wherein the data set values (i.e., pixel values) in different formats (col. 1, lines 41-43).

10. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Doyle and Mendenhall because Mendenhall's teaching of data set values in different formats would increase the flexibility of Doyle's system by allowing the server to compute frame data using different formatted pixel values.

11. As per claims 2 and 15, Doyle and Mendenhall taught the invention substantially as claimed in claims 1 and 14 above. Doyle further taught wherein said client computer further derives new data from said at least one data set (Page 4, paragraph 34; page 6, paragraph 66). (i.e., since the client is able to rotate, scale and otherwise reposition the viewpoint with respect to the image by updating the original image, it is inherent that the client must derives new image data with respect to the original image data (e.g. said at least one data set).

12. As per claims 6 and 16, Doyle and Mendenhall taught the invention substantially as claimed in claims 1 and 14 above. Doyle further taught that said at least one data set comprises a

plurality of data sets and said image rendered from said plurality of data sets (page 6, paragraph 66).

13. As per claim 7, Doyle and Mendenhall taught the invention substantially as claimed in claim 6 above. Doyle further taught that said plurality of data sets are stored on a respective one of said processing servers (page 5, paragraph 60).

14. As per claim 19, Doyle and Mendenhall taught the invention substantially as claimed in claim 14 above. Doyle further taught comprising: storing the at least one data set by the client computer; and modifying the data set values of said at least one data set to generate new data. (page 6, paragraph 66; page 9, paragraphs 95 and 96).

15. As per claims 9 and 20 Doyle further taught that said image is modified to include said new data (page 6, paragraph 66; page 9, paragraphs 95 and 96) (i.e., the current position of the image is updated to include the new position of the image).

16. As per claims 11 and 22, Doyle and Mendenhall taught the invention substantially as claimed in claims 1 and 14 above. Doyle further taught that each said plurality of servers executes a respective server application, and the server applications executed by said plurality of servers being integrated with one another so as to provide said at least one data set (fig. 6, page 6, paragraph 68).

17. As per claim 13, Doyle and Mendenhall taught the invention substantially as claimed in claim 1 above. Doyle further taught that said at least one data set comprises spatial data and attribute data (page 6, paragraphs 66 and 68; page 9, paragraph 92).

18. Claims 4-5, 12, 17-18 and 23-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doyle and Mendenhall in view of Roy et al, U.S. Patent 6,337,693 (hereinafter Roy).

19. Roy was cited in the last office action.

20. As per claims 4 and 17, Doyle and Mendenhall taught the invention substantially as claimed in claims 3 and 16 above. Doyle and Mendenhall did not teach image comprises layers of subimages. Roy taught that said image comprises superimposed multiple layers of subimages (col. 3, lines 3-5).

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Doyle, Mendenhall and Roy because Roy's teaching of image comprises layers of subimages would increase the efficiency of Doyle's and Mendenhall's systems by allowing map layers to provide additional information for a map picture (col. 3, lines 3-5).

22. As per claims 5 and 18, Doyle, Mendenhall and Roy taught the invention substantially as claimed in claims 4 and 17 above. Doyle further taught that each of said subimages rendered from one of said plurality of data sets (page 6, paragraphs 66 and 68).

23. As per claims 12 and 23-25, Doyle and Mendenhall taught the invention substantially as claimed in claims 11 and 22 above. Doyle and Mendenhall did not specifically detailing different types of servers. Roy taught that said plurality of servers comprises:

a host server [e.g. web server] connectable to said client computer and at least one other server (fig. 1);

a database server for maintaining a relational database, said database storing spatial data and tabular data (162, fig. 1; col. 4, lines 30-32);

a geospatial metadata server operatively connected to said database server for providing data mining of said database (140, fig. 1; col. 5, lines 21-26; col. 11, lines 14-28) (i.e., database is providing map data that are stored on said database); and

a map query server for receiving a spatial operation request from said client computer and for generating a map query request to said database server (col. 5, lines 21-27), thereby said database server returning unique identifiers for all features in said spatial operation request in a format readable by said client computer (col. 3, lines 16-24) (Note that it is inherent that the unique identifier for all features in said spatial operation request must be in a format readable by the client computer in order for the image to be display on the client).

24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Doyle, Mendenhall and Roy because Roy's teaching of plurality of servers would increase the efficiency of Doyle's and Mendenhall's systems by providing faster retrieval time by using a plurality of servers for rendering image data to a requesting client.

25. Doyle, Mendenhall and Roy did not specifically teach a raster server for retrieving and sending referenced graphic and a vector map server. However, Roy taught a web server for retrieving and sending referenced graphic (col. 5, lines 30-45), providing vector-based map data (col. 4, lines 28-29). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a raster server and a vector map server because by doing so would increase the efficiency of their systems by load-balancing the workloads.

26. As per claim 26, Doyle and Mendenhall taught the invention substantially as claimed in claim 22 above. Doyle and Mendenhall did not teach different types of servers. Roy taught that providing at least one data set comprising a respective plurality of data set values by the plurality of servers comprises:

sending a spatial operation request by the client computer (col. 3, lines 16-24);

receiving a spatial operation request by a map query server (col. 3, lines 16-24; col. 5, lines 21-27); and

returning unique identifiers by the database server for all features in the spatial operation request (col. 3, lines 16-24).

27. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Doyle, Mendenhall and Roy because Roy's teaching of plurality of servers would increase the efficiency of Doyle's and Mendenhall's systems by providing faster retrieval time by using a plurality of servers for rendering image data to a requesting client.

28. Doyle, Mendenhall and Roy did not specifically teach generating and transmitting the map query request for retrieving data from a database server. However, Roy taught a map query server retrieving the map data from the database server (col. 5, lines 21-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use query request for retrieving data as the design choice of their system.

29. As per claim 27, Doyle and Mendenhall taught the invention substantially as claimed in claim 22 above. Doyle and Mendenhall did not specifically detailing different types of servers. Roy taught that providing at least one data set comprising a respective plurality of data set values by the plurality of servers comprises:

maintaining and storing spatial data and tabular data in a relational database on a database server (162, fig. 1; col. 4, lines 30-32);

sending a spatial operation request by the client computer (col. 3, lines 16-24);

receiving a spatial operation request sent by a map query server (col. 3, lines 16-24; col. 5, lines 21-27); and

returning unique identifiers by the database server for all features in the spatial operation request (col. 3, lines 16-24).

30. It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Doyle, Mendenhall and Roy because Roy's teaching of plurality of servers would increase the efficiency of Doyle's and Mendenhall's systems by providing faster retrieval time by using a plurality of servers for rendering image data to a requesting client.

31. Doyle, Mendenhall and Roy did not specifically teach generating and transmitting the map query request for retrieving data from a database server. However, Roy taught a map query server retrieving the map data from the database server (col. 5, lines 21-27). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use query request for retrieving data as the design choice of their system.

32. Applicant's arguments with respect to claims 1-2, 4-7, 9, 11-20 and 22-28, filed 2/7/05, have been fully considered but are not deemed to be persuasive and are moot in view of the new grounds of rejection.

33. In the remark applicant argued that

(1) the cited references fail to teach providing new data by either transforming the original data or by comparing the original data to reference questions.

(2) the cited references fail to teach geospatial queries.

(3) the cited references do not disclose a system that creates "new" data from the original data.

(4) the cited references do not teach the various data requests, extractions, etc that are provided by certain servers.

34. In response to point (1), Doyle taught wherein said client computer further derives new data from said at least one data set (Page 4, paragraph 34; page 6, paragraph 66). Note that since the client is able to rotate, scale, and otherwise reposition the viewpoints with respect to the image by updating the original image, therefore the original data of the original image must be updated (i.e., transformed) in order to view the new position of the image (i.e., new data image).

35. In response to point (2), Doyle taught the invention substantially as claimed in claim 1 above comprising conducting geospatial queries between said data set values of said at least one data set (page 4, paragraph 34; Page 9, paragraph 97). Note that since the user (i.e., client computer) is able to rotate, scale and otherwise reposition the viewpoint with the image, it is inherent that user must conduct geospatial queries (i.e., manipulating the data received from the server) between the data set values.

36. In response to point (3), Doyle taught wherein said client computer further derives new data from said at least one data set (Page 4, paragraph 34; page 6, paragraph 66). Note that since the client is able to rotate, scale, and reposition the viewpoint with respect to the original image by updating the original image, therefore the new position of the image (i.e., new data) must be created by updating he current position of the image (i.e., original data).

37. In response to point (4), Doyle and Mendenhall taught the invention substantially as claimed in claims 11 and 22 above. Doyle and Mendenhall did not specifically detailing different types of servers. Roy taught that said plurality of servers comprises:

a host server [e.g. web server] connectable to said client computer and at least one other server (fig. 1);

a database server for maintaining a relational database, said database storing spatial data and tabular data (162, fig. 1; col. 4, lines 30-32);

a geospatial metadata server operatively connected to said database server for providing data mining of said database (140, fig. 1; col. 5, lines 21-26; col. 11, lines 14-28) (i.e., database is providing map data that are stored on said database); and

a map query server for receiving a spatial operation request from said client computer and for generating a map query request to said database server (col. 5, lines 21-27), thereby said database server returning unique identifiers for all features in said spatial operation request in a format readable by said client computer (col. 3, lines 16-24) (Note that it is inherent that the unique identifier for all features in said spatial operation request must be in a format readable by the client computer in order for the image to be display on the client). Furthermore, the map

server (i.e., the geospatial server) retrieves (i.e., extracts) the map data from the database. Since the map server access the database by retrieving the map data, it is inherent that the map server must provide queries to specify the map data that needs to be retrieved.

38. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

39. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action. Any inquiry concerning this communication or earlier communications form the examiner should be directed to Philip Lee whose telephone number is (571) 272-3967. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Philip Lee